

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Valley Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Everbrite, LLC  
Buena Vista, Virginia  
Permit No. VRO81078

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Everbrite, LLC has applied for a renewal of a Title V Operating Permit for its Buena Vista, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: \_\_\_\_\_  
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Air Permit Manager: \_\_\_\_\_ Date: \_\_\_\_\_  
Sharon G. Foley, P.E.

Deputy Regional Director: \_\_\_\_\_ Date: \_\_\_\_\_  
Larry M. Simmons, P.E.

## **FACILITY INFORMATION**

### Permittee

Everbrite, LLC  
627 East 30<sup>th</sup> Street  
Buena Vista, Virginia 24416

### Facility

Everbrite, LLC  
627 East 30<sup>th</sup> Street  
Buena Vista, Virginia 24416

County-Plant ID No: 51-530-0051

## **SOURCE DESCRIPTION**

NAICS Code 339950 (formerly SIC Code 3993) – Signs and Advertising Specialties

Everbrite, LLC is engaged in the manufacture and coating of plastic and metal signs.

The facility is a Title V major source of hazardous air pollutants (HAPs). This source is located in an attainment area for all pollutants, and is a PSD synthetic minor source. The facility is currently operating under a minor New Source Review permit issued on July 19, 2005. An existing Title V permit was issued on August 15, 2000 and expires on August 15, 2005.

## **COMPLIANCE STATUS**

The facility is inspected once a year.

A full compliance evaluation of this facility, including a site visit, was most recently conducted at Everbrite on March 12, 2004. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## **C CHANGES SINCE INITIAL PERMIT**

On February 14, 2005, Valley Regional Office (VRO) received a Form 805 application from Everbrite, LLC requesting a renewal of the Title V permit. Additional information was received on April 5, 2005 and July 15, 2005.

VRO requested a Form 7 application so that the emission limits based on Virginia's Toxics Rule (9 VAC 5 Chapter 60, Part II, Article 5 (formerly 9 VAC 5 Chapter 50, Part II, Article 3)), could be moved to a state-only enforceable requirements section in the minor NSR permit (see discussion below). The Form 7 application was received on May 19, 2005 with additional information received on July 15, 2005. The minor NSR permit was amended on July 19, 2005 to move the toxic emission limits to a state-only enforceable requirements section. These conditions are not federally enforceable and not applicable requirements in the Title V renewal.

The Title V renewal incorporates the above change as well as additional changes as detailed below:

- Deletion of the solvent recovery still # 2 (STL2) from the emission units
- Removal of the condition regarding facility or control equipment malfunction for HAP processes under the Coating and Cleaning Equipment section
- Removal of the quarterly reporting requirements in the Coating and Cleaning Equipment section
- Removal of all of the limitations regarding toxic pollutants under the General Coating section
- Addition of the Hazardous Air Pollutant Conditions section for 40 CFR 63 Subparts Mmmm and Pppp
- Addition of two natural gas-fired forming ovens (FO1 and FO2) as insignificant emission units
- Update of General Conditions with current boilerplate language
- Update of minor NSR permit date and condition numbers noted in the Title V condition citations

These changes are discussed in more detail below.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

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Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Coating and Cleaning Equipment</b>							
MP1	ST3	Metal Paint Booth (maximum 2 guns)	4 gallons/hr	Overspray Dry Filter	FIL1	PM PM-10	7/19/05
MP2	ST4	Metal Paint Booth (maximum 2 guns)	4 gallons/hr	Overspray Dry Filter	FIL2	PM PM-10	7/19/05
PP1	ST5	Plastic Paint Booth (maximum 3 guns)	3.675 gallons/hr	Overspray Dry Filter	FIL3	PM PM-10	7/19/05
PP2	ST6	Plastic Paint Booth (maximum 3 guns)	3.675 gallons/hr	Overspray Dry Filter	FIL4	PM PM-10	7/19/05
SS	SS	Silk Screening Stations (5 stations total)	6 gallons/hr	-	-	-	7/19/05
STL1	-	Solvent Recovery Still	0.5 gallon/hr	-	-	-	-
CL	-	Cleaning/Misc. Operations	1.5 gallons/hr	-	-	-	7/19/05
SB1	ST9	Spray Booth equipped with a 2.2 MMBtu/hr natural gas-fired burner (maximum 2 guns)	7 gallons/hr	Overspray Dry Filter	FIL5	PM PM-10	7/19/05
C1	-	Woodworking Operations	-	Cyclone	-	PM PM-10	-

## EMISSIONS INVENTORY

A copy of the 2004 annual emission update is attached as Attachment A. Emissions are summarized in the following tables.

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	Criteria Pollutant Emissions (tons/yr)				
	VOC	CO	SO <sub>2</sub>	PM-10	NO <sub>x</sub>
Plastic Booths	6.77	-	-	0.17	-
Metal Booths	6.50	-	-	0.18	-
Silk Screening	0.09	-	-	-	-
Spray Booth (SB1)	0.62	-	-	0.02	-
Cleaning	0.18	-	-	-	-
<b>Total</b>					

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Pollutant	Hazardous Air Pollutant Emissions (tons/yr)
Butyl Carbitol (CAS # 112-34-5)	0.0048
Butyl Cellosolve (CAS # 111-76-2)	0.0310
Butyl Glycol Acetate (CAS # 112-07-2)	0.0034
Carbitol (CAS # 111-90-0)	0.0062
Chromium Compounds	0.0032
Ethyl Benzene (CAS # 100-41-4)	0.0020
Hexamethylene Diisocyanate (CAS # 822-06-0)	0.0002
Methyl Isobutyl Ketone (CAS # 108-10-1)	0.0081
Methanol (CAS # 67-56-1)	0.0013
Naphthalene (CAS # 91-20-3)	0.0004
Toluene (CAS # 108-88-3)	0.0201
Xylene (CAS # 1330-20-7)	0.0278

Note: Annual emissions for each individual HAP are from the Everbrite, LLC application dated April 4, 2005 (Annual HAP emissions in Attachment A).

## **EMISSION UNIT APPLICABLE REQUIREMENTS**

### **Coating and Cleaning Equipment**

The minor NSR permit date and condition numbers noted in the Title V condition citations have been updated to reflect the current (July 19, 2005) minor NSR permit.

The condition regarding facility or control equipment malfunction for HAP processes (Condition III.A.7 in 8/15/00 Title V permit) has been deleted per current agency protocol and has also been removed from the facility's minor NSR permit.

The following limitations are state BACT requirements from the minor NSR permit issued on July 19, 2005. Please note that the condition numbers are from the 2005 permit; a copy of the permit is enclosed as Attachment B.

Condition 3: Requires that particulate emissions from all five spray booths be controlled by filters. The filters are to be at least 85% efficient and shall be changed in accordance with manufacturer's recommended frequency.

Condition 4: States minimum work practices that shall be utilized to minimize fugitive VOC emissions.

Condition 6: Limits VOC throughput to the five spray booths and the silk screening operation to 62 tons per year.

Condition 7: Emission limitations for the following pollutants – PM, PM-10, VOC.

Condition 8: Limits visible emissions from the five spray booths and silk screening exhausts to 5% opacity.

The permit also includes a condition limiting emissions of individual HAPs to 9.9 tons/yr and total HAPs to 24.9 tons/yr from the spray booth (SB1). The limitation was originally taken in the facility's minor NSR permit in 1999 to avoid the need for a case-by-case MACT determination under 9 VAC 5 Chapter 80, Article 7. The limit was removed from the minor NSR permit in the July 19, 2005 amendment but has been retained in the Title V permit so that it remains a federally enforceable restriction.

Everbrite does not meet the criteria for 40 CFR Part 64 Compliance Assurance Monitoring (CAM) applicability (40 CFR §64.2(a)(3)) because the pre-control potential to emit (PTE) for particulates for all coating operations are under the Title V major threshold of 100 tons per year. The pre-control PTE for particulates was calculated by Everbrite to be approximately 31.1 tpy.

No other pollutant is controlled by an add-on control device. Although Everbrite is not subject to CAM, all of the coating booths and the silk screening operations are subject to the periodic monitoring requirements in 40 CFR Part 70 (Title V).

The monitoring and recordkeeping requirements in the minor new source review permit have been modified to meet Part 70 requirements.

Recordkeeping requirements will satisfy the periodic monitoring requirements for the coating and cleaning equipment.

Everbrite is required to maintain MSDS or other vendor information showing VOC content, HAP content, water content, and solids content for each paint and cleaning solution used. These MSDS will be utilized in calculating all throughputs and emissions as detailed below.

Once each month Everbrite will calculate the VOC throughputs and emissions from the plastic paint booths, the metal paint booths, the spray booth, the silk screening operation, and cleaning. Annual emissions will be calculated monthly as the sum of each consecutive 12-month period.

For the purpose of calculating coating VOC throughputs, the permit requires a tiered approach to determining VOC content in coatings. Everbrite has historically operated at levels well below (less than 25% of) its VOC throughput limits. Because of the large margin of compliance, the permit allows the VOC content of coating, as supplied, used in emission and throughput calculations to be based on manufacturer formulation data as shown on the MSDS for each product. If a range of VOC content values is given, calculations shall be based on the maximum value. However, once the monthly calculation of actual coating VOC throughput (as required in Condition III.B.10.) indicates throughput at 50% or more of the allowable annual coating VOC throughput, quarterly testing of each product formulation is required. The testing shall be conducted, by either the permittee or the supplier, using EPA reference Method 24 or 24A (40 CFR 60, Appendix A). Each coating shipment must be identified by a product formulation number that may be correlated to Reference Method 24 or 24A results. The quarterly tests may be discontinued after actual annual throughputs are below 50% of the allowable coating VOC throughput for three consecutive months. If quarterly testing is discontinued, the permit requires that the VOC content determined in the last test for each formulation be used in lieu of MSDS information.

For the purpose of calculating HAP emissions and throughputs for the spray booth (Ref # SB1), the permit requires a tiered approach to determining HAP content of coatings. Everbrite has historically operated at levels well below their HAP limits. Because of the large expected margin of compliance, the permit allows the HAP content of coating, as supplied, used in emission calculations to be based on manufacturer formulation data as shown on the MSDS for each product. If a range of HAP content values is given, emission calculations shall be based on the maximum value. However, once the monthly calculation of actual HAP emissions (as required in Condition III.B.10.) indicates emissions at 50% or more of the allowable HAP emission limits, quarterly testing of each product formulation is required. The testing shall be conducted by either the permittee or the supplier, using EPA reference Method 311 (40 CFR 63,

Appendix A). Each coating shipment must be identified by a product formulation number that may be correlated to Reference Method 311 results. The quarterly tests may be discontinued after actual annual emissions are below 50% of the allowable HAP emission limit for three consecutive months. If quarterly testing is discontinued, the permit requires that the HAP content determined in the last test for each formulation be used in lieu of MSDS information.

The permit requires Everbrite to calculate VOC throughputs using the following equation:

$$= \sum_{i=1}$$

Where:

T	coating VOC throughput rate (lb/time period)
C <sub>i</sub>	VOC content of each coating (i) applied during the time period (lb/gal)
G <sub>i</sub>	number of gallons of each coating (i) applied in the metal paint booths (Ref # MP1 & MP2), the plastic paint booths (Ref # PP1 & PP2), and the spray booth (Ref # SB1) during the time period (gal)

For the coatings, it is assumed that all VOC contained in the coatings utilized is emitted. The same assumption is made for the cleaning operations. However, Everbrite currently operates one still that is used to recover some of the toluene cleaning solvent. The permit allows cleaning solvents which are recovered and sent off-site to be deducted from VOC emissions for the cleaning operations. Therefore, the permit requires Everbrite to use the following formula to demonstrate compliance with the VOC limit in Condition III.A.4:

$$= + ( - )$$

Where:

E	VOC emission rate (tons/time period)
T	coating VOC emission rate (tons/time period). The amount of VOC emitted shall equal the VOC throughput calculated in Condition III.B.6.
V <sub>CL</sub>	VOC throughput for cleaning operations (tons/time period)
V <sub>R</sub>	VOC recovered and sent off-site from cleaning operations (tons/time period)

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.



Once each month Everbrite is required to calculate the particulate emissions from the plastic paint booths, the metal paint booths, the spray booth, and the silk screening operation as follows:

- To calculate particulate emissions on a monthly or annual basis:

$$= \left( \sum_{i=1} \right) \left( \frac{100 - P_i}{100} \right) \left( \frac{100 - CE}{100} \right)$$

Where:

E	particulate emission rate (lb/time period)
P <sub>i</sub>	solids content of each coating (i) applied during the time period (lb solids/lb paint)
G <sub>i</sub>	number of gallons of each coating (i) applied in the metal paint booths (Ref # MP1 & MP2), the plastic paint booths (Ref # PP1 & PP2), and the spray booth (Ref # SB1) during the time period (gal)
D <sub>i</sub>	density of each coating (i) applied during the time period (lb/gal)
T	transfer efficiency of the spray booth (%) 50 unless records demonstrate a higher value is appropriate
CE	control efficiency of the filter (%) 85 unless records demonstrate a higher value is appropriate

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

- To calculate average hourly emission rates:

$$= \frac{E}{H}$$

Where:

PE	average hourly particulate emission rate (lb/hour)
E	particulate emission rate (lb/month)
H	combined hours of operation of the metal paint booths (Ref # MP1 & MP2), the plastic paint booths (Ref # PP1 & PP2), and the spray booth (Ref # SB1) (hr/month)

Average hourly particulate emissions shall be calculated once each month.

In Condition III.A.5, Everbrite has a limit on HAP emissions from the spray booth (Ref # SB1) that ensures that the spray booth is not a major source for HAPs, in and of itself. This limit, which was taken to avoid permitting under 9 VAC 5 Chapter 80, Part II, Article 7 (requiring a case-specific MACT determination), was removed from the current (July 19, 2005) NSR permit because the provisions of Article 7 do not apply to affected sources (sources regulated by a MACT standard) per 9 VAC 5-80-1400 F. Everbrite is subject to both Subparts MMMM and PPPP of 40 CFR 63 (the MACTs for Miscellaneous Metal Parts & Products Coating and for Plastic Parts & Products Coating). However, the limit will remain in Everbrite's renewal Title V permit at least until January 2, 2007 (the earliest of the two MACT existing source compliance dates). Everbrite is required to maintain records that the 9.9 tpy individual HAP limit and the 24.9 tpy combined HAP limit is not exceeded. Everbrite can utilize the formulas given in Section III of the permit to calculate the HAP emissions from SB1. The permit requires Everbrite to maintain throughput data for each coating used in SB1 in order to track the coating VOC used. That data can be used in the formulas given in Section III of the permit to determine the actual HAP emissions from SB1. The emission rates of all HAPs are then combined to demonstrate compliance with the limit in Condition III.A.5 of the permit.

Everbrite is required to perform daily inspections of each spray booth filter each day the spray booth is in operation. The inspections will include a check of correct filter placement and filter condition. A properly operating filter will eliminate particulate emissions, which will also eliminate visible emissions which are caused by particulate emissions. The daily inspections will reveal potential problems with the filters, thereby allowing the problems to be fixed prior to operation of the spray booth. If the filters are not functioning properly, visible emissions will be present. This will satisfy the periodic monitoring requirement for the visible emission limit for all spray booths. It should be noted that no inspections are required for the silk screening operation (Ref # SS). The coatings in this operation are not sprayed, but rather hand applied. Therefore, the inspection is unnecessary.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include: DEQ approved documentation demonstrating the removal efficiency of the filters utilized to control particulate emissions from the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), and the spray booth (Ref # SB1); a log showing the date of filter replacement for each spray booth; monthly and annual coating VOC throughputs (in tons) for the plastic paint booths (Ref # PP1 & PP2), the metal paint booths (Ref # MP1 & MP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS); monthly and annual coating VOC emissions (in tons) from the plastic paint booths (Ref # PP1 & PP2), the metal paint booths (Ref # MP1 & MP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS); monthly and annual VOC throughput (in tons) for cleaning operations; monthly and annual VOC recovered and sent off-site (in tons) from cleaning operations; monthly and annual VOC emissions (in tons) from cleaning operations; average hourly, monthly, and annual particulate emissions from the plastic paint booths (Ref # PP1 & PP2), the metal paint booths (Ref # MP1 & MP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS); total hours that the metal paint booths (Ref # MP1 & MP2), the plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), and the silk screening

operation (Ref # SS) operate on a monthly basis; Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content, and solids content for each paint and cleaning solution used; results of Reference Method 24/24A and Reference Method 311 testing; monthly and annual throughput (in gallons) of each coating and cleaning solution used; monthly and annual emissions to verify compliance with the individual and total HAP emission limitations in Condition III.A.5; and, inspection records as required by Condition III.B.1.

The daily inspections and recordkeeping required by the permit will satisfy the periodic monitoring requirement for the coating and cleaning equipment.

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

The conditions regarding quarterly reporting (Condition III.D.1 and 2 in 8/15/00 Title V permit) have been deleted. The conditions have already been removed from the facility's minor NSR permit so they are no longer applicable requirements. Semi-annual reporting under the General Conditions remains in place.

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The five spray booths and the silk screening operation were all constructed after 1972, and are subject to 9 VAC 5-50-80, Standard for Visible Emissions. The standard limits visible emissions to 20% except during one six-minute period in any one hour in which visible emissions shall not exceed 30%.

The minor new source review permit (July 19, 2005) limits visible emissions from the five spray booths and the silk screening operations to 5%.

Compliance with the opacity limit in the minor new source review permit will insure compliance with 9 VAC 5-50-80. 9 VAC 5-50-80 has been streamlined, and the Title V operating permit simply contains the opacity limitation from the minor new source review permit.

### **General Coating Requirements**

The requirements originally contained within this section are no longer federally enforceable applicable requirements and have been deleted. The permit conditions and portions of conditions which were established per the state toxic regulations were moved to a state-only enforceable requirements section in the current (July 19, 2005) NSR permit. The corresponding conditions were deleted from the Title V operating permit as the state toxics regulations are not federally

enforceable.

### **Woodworking Equipment Unit C**

Everbrite operates a few pieces of woodworking equipment. The equipment includes: a router, two band saws, a drill press, a planer, a radial arm saw, and two table saws. At most, the potential uncontrolled emissions from this equipment are approximately 2.5 tons per year.

The woodworking operations at Everbrite are not currently permitted. However, the equipment is subject to Rule 4-17, Emission Standards for Woodworking Operations. As such, the following standards have been incorporated into the Title V operating permit:

9 VAC 5-40-2270 Standard for Particulate Matter: Requires that all particulate emissions caused by any woodworking operation be controlled by adequate duct work and properly designed collectors, at a minimum. Also requires that particulate emissions not exceed 0.05 grains per standard cubic foot of exhaust gas.

The permit requires that Everbrite control particulate emissions from woodworking operations using a cyclone. The woodworking operations at Everbrite are very small, and the cyclone operates at approximately 85% efficiency. The cyclone should be able to control particulate emissions such that the 0.05 gr/dscf emission limit is not exceeded.

9 VAC 5-50-80, Standard for Visible Emissions, has also been included in the permit for woodworking operations. A limit has been placed in the permit stating that visible emissions from the cyclone shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

The standard for fugitive dust/emissions in 9 VAC 5-40-90, which is incorporated by reference into Rule 4-17, has not been included in the Title V permit because the provisions are not applicable to the woodworking operation at Everbrite. 9 VAC 5-40-90 addresses such outdoor material handling concerns as demolition, construction, and grading operations; dirt roads and stockpiles; handling of dusty materials and containment during sandblasting; open conveyance of dusty materials, and removal of dusty material from paved roads. Everbrite's woodworking operation does not involve the activities addressed in 9 VAC 5-40-90.

Everbrite does not meet the criteria for 40 CFR Part 64 Compliance Assurance Monitoring (CAM) applicability (40 CFR §64.2(a)(3)) because the pre-control PTE for particulates for the woodworking operations are under the Title V major threshold of 100 tons per year. The pre-control PTE for particulates was calculated by Everbrite to be approximately 13.9 tpy. The woodworking operations are subject to the periodic monitoring requirements in 40 CFR Part 70 (Title V).

There are two monitoring requirements in the permit. One requires annual inspections of the cyclone and the other is a visible emission inspection on the cyclone.

The woodworking equipment in operation at Everbrite is required to meet a particulate emission limitation of 0.05 gr/dscf. This standard is not very stringent. As long as the particulate emissions are vented through a properly operating control device, the standard is easily obtained. The particulate emissions from the woodworking equipment are currently vented through a cyclone. As long as the cyclone is properly maintained and operated, there is little likelihood of violation of the 0.05 gr/dscf standard. Therefore, an annual inspection of the cyclone is required. This inspection will insure that the cyclone is properly maintained thereby insuring that the 0.05 gr/dscf limit is not violated.

If particulate control devices, such as cyclones, are operating properly there should be no visible emissions from the units. This is the case because the devices eliminate the particulates, which are the source of the visible emissions. Therefore, if visible emissions are seen from the cyclone it can be reasonably assumed that there is a problem with the cyclone. Everbrite is required to perform weekly inspections of the cyclone. The inspection will include an observation of the presence of visible emissions. If visible emissions are found, the permit requires Everbrite to either determine the cause of the visible emissions, take corrective action, and return the stack to no visible emissions or perform a VEE. If a VEE is performed, it is to last for six minutes unless any readings during the six minutes are greater than the 20% opacity standard. If any of the readings are over 20%, then the VEE must be continued for a total of sixty minutes to demonstrate compliance with the opacity standard. If 12 consecutive weekly visible emission evaluations show no visible emissions, then the requirement is reduced to monthly. However, if a monthly inspection shows visible emissions, the requirement returns to weekly.

Visible emissions have been selected as the indicator because they are indicative of good operation and maintenance of a cyclone. If the cyclone is not functioning properly, visible emissions will be present and there is a chance that Everbrite is in danger of not meeting the 0.05 gr/dscf requirement. Therefore, visible emissions are an acceptable performance indicator.

The weekly inspections will also satisfy the periodic monitoring requirement for the visible emission limitation. Frequent checks for visible emissions will limit malfunctions of the control equipment. As long as the control equipment is operating properly, there is little likelihood of violating the visible emission limitation. The control equipment will limit the amount of particulates that are emitted thereby limiting visible emissions.

The weekly VEE inspections and the annual cyclone inspections satisfy the periodic monitoring requirement for the woodworking equipment.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include throughput of wood, waste rate of wood, annual

inspections on cyclone, and weekly/monthly visible emission inspections.

No specific reporting has been included in the permit for the woodworking operations.

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

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The woodworking equipment is subject to Rule 4-17, making it subject to 9 VAC 5-40-80, Standard for Visible Emissions. This standard states that visible emissions from the cyclone shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emission shall not exceed 60% opacity.

The woodworking equipment was installed after 1972, making it subject to 9 VAC 5-50-80, Standard for Visible Emissions. This standard states that visible emissions from the cyclone shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emission shall not exceed 30% opacity.

9 VAC 5-50-80 is a more stringent standard, and compliance with it insures that compliance with 9 VAC 5-40-80. Therefore, 9 VAC 5-40-80 has been streamlined and only 9 VAC 5-50-80 has been included in the permit.

#### **ardous Air Pollutants Requirements**

The Surface Coating of Miscellaneous Metal Parts and Products MACT (Subpart MMMM) and the Surface Coating of Plastic Parts and Products MACT (Subpart PPPP) were promulgated January 2, 2004 and April 19, 2004, respectively. These two MACTs were identified as future applicable requirements. Placeholder language was added in Section V for Limitations and Recordkeeping for The Surface Coating of Miscellaneous Metal Parts and Products MACT (Subpart MMMM) and the Surface Coating of Plastic Parts and Products MACT (Subpart PPPP). The permit language incorporates all control, operational, work practice, monitoring, recordkeeping, reporting, and testing requirements, as applicable. Everbrite provided initial notifications to VRO and EPA Region III for both MACTs on April 12, 2005.

#### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-

annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within four daytime business hours.

The general conditions were updated with current boilerplate language, which resulted in changes or additions to the following:

- Permit Expiration
- Recordkeeping and Reporting
- Annual Compliance Certification
- Permit Deviation Reporting
- Failure/Malfunction Reporting
- Permit Modification (previously Permit Action for Cause)
- Duty to Pay Permit Fees
- Malfunction as an Affirmative Defense
- Permit Revocation or Termination for Cause
- Asbestos Requirements

## **STATE ONLY APPLICABLE REQUIREMENTS**

Everbrite did not identify any state-only enforceable requirements in their application. All of the requirements in the (July 19, 2005) minor NSR permit are federally enforceable except the toxics conditions which are contained in the NSR permit in a state-only enforceable requirements section. The state-only applicable requirements have not been included in the Title V operating permit.

## **FUTURE APPLICABLE REQUIREMENTS**

Everbrite did identify the Surface Coating of Miscellaneous Metal Parts and Products MACT (40 CFR 63 Subpart MMMM) and the Surface Coating of Plastic Parts and Products MACT (40 CFR 63 Subpart PPPP) as future applicable requirements in their application. Placeholder language has been included in the Hazardous Air Pollutant Conditions section for both of the above MACTs.

## **INAPPLICABLE REQUIREMENTS**

Everbrite did not identify any inapplicable requirements in their application. Therefore, no inapplicable requirements are included in the permit.

## **COMPLIANCE PLAN**

Everbrite is currently in compliance with all applicable requirements. No compliance plan was included in the application or in the permit.

## INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

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Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
DO1	Natural Gas-Fired Drying Oven	9 VAC 5-80-720 C	-	1.0 MMBtu/hr
DO2	Natural Gas-Fired Drying Oven	9 VAC 5-80-720 C	-	1.0 MMBtu/hr
FO1	Natural Gas-Fired Forming Oven	9 VAC 5-80-720 C	-	1.0 MMBtu/hr
FO2	Natural Gas-Fired Forming Oven	9 VAC 5-80-720 C	-	1.0 MMBtu/hr
SLB	Spraylat Booth	9 VAC 5-80-720 B	PM PM-10	-

The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

## CONFIDENTIAL INFORMATION

Everbrite did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

## PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in the *ly*, Lexington, Virginia, on 07/20/2005. EPA was sent a copy of the draft permit and notified of the public notice on 07/19/2005. West Virginia, the only affected state, was sent a copy of the public notice in an e-mail dated 07/20/2005. All persons on the Title V mailing list were also sent a copy of the public notice in letters dated 07/20/2005. EPA's 45-day review period ended on September 3, 2005. No comments were received.



# ATTACHMENT A

## 2004 Emission Inventory Annual HAP Emissions

# ATTACHMENT B

Minor NSR Permit  
(dated July 19, 2005)

## STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

This permit supercedes your permit dated December 9, 1999.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Everbrite, LLC  
627 East 30<sup>th</sup> Street  
Buena Vista, Virginia 24416  
Registration No.: 81078  
Plant ID No.: 51-163-0051

is authorized to modify and operate

a sign manufacturing facility

located at

627 East 30<sup>th</sup> Street  
Buena Vista, Virginia

in accordance with the Conditions of this permit.

Approved on July 19, 2005

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Director, Department of Environmental Quality

Permit consists of 9 pages.  
Permit Conditions 1 to 21.  
Attachment A.

PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses ( ) after each condition.

### **APPLICATION**

1. Except as specified in this permit, the permitted facility is to be modified and operated as represented in the permit application dated May 17, 2005, September 14, 1999 and October 15, 1996, including amendment information dated July 13, 2005, January 3, 1997 and January 15, 1997. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.  
(9 VAC 5-50-390 and 9 VAC 5-80-1210 D)

### **PROCESS REQUIREMENTS**

2. **Equipment List** – Previously permitted equipment at this facility prior to the date of this permit consists of:
  - one spray booth, rated at 7 gallons per hour, equipped with a 2.2 MMBtu/hr natural gas-fired burner (Ref # SB1)
  - two metal paint booths (Ref # MP1 & MP2)
  - two plastic paint booths (Ref # PP1 & PP2)
  - a silk screening operation with five stations (Ref # SS)  
(9 VAC 5-80-1100)
3. **Emission Controls** - Particulate emissions from the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), and the spray booth (Ref # SB1) shall be controlled by filters with a removal efficiency equal to or greater than 85%. The permittee shall change the filters in accordance with the manufacturer's recommended frequency. The spray booths shall be provided with adequate access for inspection.  
(9 VAC 5-50-260)
4. **Fugitive VOC Emission Controls** - Fugitive emission controls shall include the following, or equivalent, as a minimum: volatile organic compounds shall not be intentionally spilled, discarded to sewers, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.  
(9 VAC 5-50-20)
5. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations.  
(9 VAC 5-50-30 F)

## **OPERATING/EMISSION LIMITATIONS**

6. **Throughput** - The combined throughput of coating VOC to the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS) shall not exceed 62 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)
7. **Emission Limits** – Total emissions from the operation of the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), the silk screening stations (Ref # SS), and cleaning shall not exceed the limits specified below:

Particulate Matter	7.6 lbs/hr	6.8 tons/yr
PM-10	7.6 lbs/hr	6.8 tons/yr
Volatile Organic Compounds		90.0 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-50-260)

8. **Visible Emission Limit** - Visible emissions from the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), and the silk screening (Ref # SS) exhausts shall not exceed 5 % opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80 and 9 VAC 5-50-260)

## **RECORDS**

9. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:
- Monthly and annual coating VOC throughputs (in tons) for the plastic paint booths (Ref # PP1 & PP2), the metal paint booths (Ref # MP1 & MP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
  - Monthly and annual coating VOC emissions (in tons) from the plastic paint booths (Ref # PP1 & PP2), the metal paint booths (Ref # MP1 & MP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

- c. Monthly and annual VOC throughput (in tons) for cleaning operations. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- d. Monthly and annual VOC recovered and sent off-site (in tons) from cleaning operations. VOC recovered and sent off-site shall be calculated monthly as the sum of each consecutive 12-month period.
- e. Monthly and annual VOC emissions (in tons) from cleaning operations. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
- f. Total hours that the metal paint booths (Ref # MP1 & MP2), the plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), and the silk screening operation (Ref # SS) operate on a monthly basis.
- g. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, water content, and solids content for each paint and cleaning solution used.
- h. Monthly and annual throughput (in gallons) of each coating and cleaning solution used. Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

These records shall be available for inspection by the DEQ and shall be current for at least the most recent five years.  
(9 VAC 5-50-50)

### **GENERAL CONDITIONS**

**10. Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-170-130)

**11. Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Valley Region, of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours after discovery of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the discovery. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Valley Region, in writing.

(9 VAC 5-20-180 C)

**12. Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-20-180 I)

**13. Maintenance/Operating Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-20 E)

**14. Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

- a. Knowingly makes material misstatements in the application for this permit or any amendments to it;
- b. Fails to comply with the conditions of this permit;

- c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted; or
- f. Fails to modify or operate this facility in accordance with the application for this permit or any amendments to it.

(9 VAC 5-80-1210)

15. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Valley Region, of the change of ownership within 30 days of the transfer.  
(9 VAC 5-80-1240)

16. **Registration/Update** - Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.  
(9 VAC 5-170-60 and 9 VAC 5-20-160)

17. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-1180)



## **STATE-ONLY ENFORCEABLE REQUIREMENTS**

This section is included pursuant to 9 VAC 5-80-1120 F, and is not required under the federal Clean Air Act or under any of its applicable federal requirements. This section is only enforceable by the Commonwealth of Virginia State Air Pollution Control Board and its designees.

18. **Throughput** - The throughput of Butyl Cellosolve<sup>®</sup> for the silk screening operation (Ref # SS) shall not exceed 16.1 pounds per hour and 34.7 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-50-260 and 9 VAC 5-60-320)

19. **Emission Limits** – Total emissions from the operation of the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), the silk screening stations (Ref # SS), and cleaning shall not exceed the limits specified below:

Butyl Cellosolve <sup>®</sup>	39.0 lbs/hr	62.0 tons/yr
Chromium Compounds	0.03 lbs/hr	140.0 lbs/yr
Cobalt Compounds	0.003 lbs/hr	14.0 lbs/yr
Ethyl Benzene	17.9 lbs/hr	62.9 tons/yr
Hexamethylene Diisocyanate	0.01 lbs/hr	41.6 lbs/yr
Methanol	10.8 lbs/hr	37.9 tons/yr
Methyl Ethyl Ketone	22.7 lbs/hr	85.5 tons/yr
Methyl Isobutyl Ketone	10.1 lbs/hr	34.8 tons/yr
Naphthalene	3.8 lbs/hr	16.6 tons/yr
Toluene	25.1 lbs/hr	90.0 tons/yr
Xylene	33.0 lbs/hr	90.0 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-50-260 and 9 VAC 5-60-320)

20. **Toxics** - As of the date of this permit, the permittee is limited to use of the following volatile and particulate toxic compounds in coatings and cleaning solutions for the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), the silk screening operation (Ref # SS), and cleaning.

<u>Particulate Toxic Compounds</u>	<u>CAS Number</u>
Chromium Compounds	-
Cobalt Compounds	-
Hexamethylene Diisocyanate	822-06-0

<u>Volatile Toxic Compounds</u>	<u>CAS Number</u>
Butyl Carbitol	112-34-5
Butyl Cellosolve	111-76-2
Butyl Glycol Acetate	112-07-2
Carbitol	111-90-0
Cumene	98-82-8
Ethyl Benzene	100-41-4
Glycol Ethers	-
Methyl Ethyl Ketone	78-93-3
Methyl Isobutyl Ketone	108-10-1
Methanol	67-56-1
Methyl Chloroform	71-55-6
Methyl Methacrylate	80-62-6
Methyl Diphenyl Diisocyanate	101-68-8
Naphthalene	91-20-3
Tetrachloroethylene	127-18-4
Toluene	108-88-8
Xylene	1330-20-7

The permittee may use additional toxic compounds (listed in Attachment A) in the two metal paint booths (Ref # MP1 & MP2), the two plastic paint booths (Ref # PP1 & PP2), the spray booth (Ref # SB1), the silk screening operation (Ref # SS) and cleaning under 9 VAC 5-60-300 C without obtaining a new permit provided the following conditions are met:

- Notification shall be given to the Director, Valley Region. Such notification shall be made within fifteen (15) days after the use of additional toxic compounds and shall include identification of the toxic compound, the date the toxic compound was first used, and the anticipated maximum throughput of that compound in lbs/hr and tons/yr. Additional details of the notification should be arranged with the Director, Valley Region.
- The permittee shall operate this facility in compliance with 9 VAC Chapter 60, Article 5, for all toxic compounds.
- The permittee shall not use any toxic compound which would make the facility subject to federal emission standards in 40 CFR 61.

- d. If a permit is required, failure to obtain the permit prior to the change in process formulation or the use of any additional toxic compound may result in enforcement action.

(9 VAC 5-80-1180, 9 VAC 5-60-320 and 9 VAC 5-60-340)

21. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

- a. Monthly and annual hexamethylene diisocyanate throughput (in pounds) for the metal paint booths (Ref # MP1 & MP2). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- b. Monthly and annual hexamethylene diisocyanate emissions (in pounds) for the metal paint booths (Ref # MP1 & MP2). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- c. Daily (in pounds), monthly (in tons), and annual (in tons) throughputs of Butyl Cellosolve<sup>®</sup> for the silk screening operation (Ref # SS). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.
- d. Total hours that the silk screening operation (Ref # SS) operates on a daily basis.
- e. Compliance with the hourly Butyl Cellosolve<sup>®</sup> throughput limit in Condition 19 shall be determined by an average of the daily throughput in section c and the hours of operation on a daily basis in section d of this condition.
- f. Monthly and annual emissions (in pounds) of each toxic listed or subsequently approved under Condition 20. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
- g. Compliance with the hourly emission limits for each toxic listed in Condition 19 shall be determined by an average of the monthly coating and cleaning solution usage in Condition 9.h, the toxic compound content for each coating and cleaning solution in section h, and the hours of operation of the equipment in Condition 9.f.
- h. Material Safety Data Sheets (MSDS) or other vendor information showing toxic compound content for each paint and cleaning solution used.

These records shall be available for inspection by the DEQ and shall be current for at least the most recent five years.

(9 VAC 5-50-50)